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TABLE OF CONTENTS.

PAGE.

EDITORIAL ARTICLE:—American Forest-trees in Spring. 191
Parks, Parkways and Pleasure-grounds.—I. . . . . *Frederick Law Olmsted.* 192
Botanical Notes from Texas.—XXV. . . . . *E. N. Plank.* 193
The Saguenay Region.—II. . . . . *Rev. E. J. Hill.* 193
NEW OR LITTLE-KNOWN PLANTS:—Miltonia vexillaria, "Fairy Queen." (With figure.) . . . . . *William Robinson.* 194
PLANT NOTES. 194
CULTURAL DEPARTMENT:—Chrysanthemums for Specimen Plants. *T. D. Hatfield.* 196
Flower Garden Notes. . . . . *W. N. Craig.* 197
Early-flowering Hardy Perennials. . . . . *R. Cameron.* 197
Begonias for Bedding Purposes. . . . . *G. W. Oliver.* 198
Bedding Out. . . . . *William Scott.* 198
Nymphæa Laydekeri rosea. . . . . *G. W. Oliver.* 198
CORRESPONDENCE:—Notes from a West Virginia Garden. . . . . *Danske Dandridge.* 198
The Exhibition of the National Sculpture Society. . . . *M. G. Van Rensselaer.* 199
NOTES. 200
ILLUSTRATION:—Miltonia vexillaria, "Fairy Queen," in Langwater Gardens, North Easton, Massachusetts, Fig. 30. 195

American Forest-trees in Spring.

THIS is the season when we especially realize how inadequate ordinary botanical descriptions are to give any distinct idea of the appearance of our forest-trees. Even when good figures of the flowers and the leaves are presented, and when we have access to dried specimens, there is nothing to indicate the wonderful transformation which takes place every day in early spring as soon as growth begins. Even in coniferous evergreens with the first genial weather the leaves warm into a deeper color, the surfaces become more smooth and reflect more light, the bud-scales take on tints of pink and brown, and the new shoots have a gray and silvery appearance which entirely changes the general aspect of the tree. But the variation in color and form manifested by our deciduous trees is much greater. The autumn colors of our woods have long been celebrated, but as a matter of fact our forest-trees in May take on a wider range of color than they do in autumn, tints which are not so striking and gorgeous, but which are more delicate and refined.

The display of soft color begins even before the buds have noticeably swollen. The bark of the Birch-twigs turns to a richer brown, the Willow glows with a clearer yellow, and as the spray of each tree swells with the rising sap, its peculiar tint is intensified, so that long before a leaf is seen the trees are enveloped with a delicately tinted and elusive mist, which cannot be described in words, but which is the visible prophecy of approaching spring to every observing eye. Indeed, this spring halo hovers over every forest and thicket as one of the most mysterious and beautiful spectacles of all the year, although it is evanescent and almost spiritual in quality. But when the buds begin to open and release the unfolding leaves the entire aspect of the woods changes every day, and as these transformations follow each other all through the month of May, our northern forests display a matchless variety of form and of harmonious color.

The scarlet flowers and fruits of the Red Maple, the snowy blossoms of the Amelanchiers, the pink of the Red Buds, and a little later on the blossoms of Dogwood, Plums and Wild Apples, are what we first think of as the conspicuous features of our spring forests. But, while these occasional masses of flowers help to emphasize the beauty of the woods, it is the variety and richness of the foliage which furnish their highest charm. Besides the rich tints of the young leaves, the scales of the leaf-buds in many trees assume bright colors, and in some cases, as in that of the Hickories, they grow to the size of full-grown leaves before they fall. The leaf-buds of the Amelanchier, for instance, though not as striking as the flowers, are quite as beautiful. The bright bud-scales of the Beech, whose rich color is intensified by the contrast of the delicate green of its young leaves, are as handsome as any flower could be. The long yellow-green catkins of the Birches, the bright red of the young growth of the Stag-horn Sumachs, the airy grace of the first foliage of the Hornbeams, not to speak of the tints of the Sassafras, the Wild Cherry and many other trees, make combinations which can hardly be appreciated by those who live in countries where the forests are made up of half a dozen species. And when, in addition to this richness and variety of color, we recall the fact that this panorama changes entirely every day and that each tree takes on a new aspect as its leaves thicken and its colors vary, we then realize how rich and multiform is the beauty of our forests in the early year.

This marvel of variety is better appreciated if we examine one particular class of trees. The Oaks, for example, are especially interesting because they form so large a portion of our forests, and they show such a wide range in color and in habit at this season. About a year ago we published an article by Mr. E. J. Hill, which gave, in some detail, an account of the expression of a dozen species of Oaks which are indigenous to the vicinity of Chicago, and this record of a careful observer is of uncommon interest, as it sets forth the fact that almost every tree has a marked individuality. This is not only because the young leaves have different colors, those of the Black Oak, for example, being red, and some of them nearly scarlet, while the young leaves of the Scarlet Oak are at first quite purple, changing to light green, and those of the White Oak stained with purple and pink. The leaves vary quite as much in texture; some of them are whitened with a dense, though pale, tomentum; others are smooth or only slightly hairy, while others still are quite smooth and glossy. In some species the young leaves are so deeply cut as to give them a feathery look; in others the leaves are crowded at the ends of the branchlets in tufts; in some the petioles are long and flexible, so that the pendent leaves are easily stirred in the wind; in others they are shorter and more sturdy, so that the leaves stand out stiffly from the ends of the branches. In the different species the twigs are stained with different colors and covered with more or less down, which ranges in tint from dark russet to light gray; in some these twigs are short and stubby, and in others they quickly grow out long and slender, which gives an entirely different aspect to the tree as it is stirred by the wind. In every case the shape, and color, and attitude, and texture of the leaf are quite distinct, so that each tree has its own special appearance in sunshine and in shade, enabling any one who is familiar with them to distinguish the species quite readily at a distance in the season when they are putting forth their leaves.

The purpose of this article, however, is not to attempt an elaborate description of the appearance of any one of our forest-trees or any class of them, but rather to direct attention to one phase of the beauty of our American landscape which has been comparatively neglected. Every autumn the railroad and steamship companies of this city advertise excursions up the Hudson and to various points in neighboring states, in order to give an opportunity for seeing the glowing colors of our forests at that season. But one who spends half a day in early May in Central Park or in Prospect Park will see a picture equally rich in color and of even more varied interest. At every season our forests present spectacles of great diversity owing to the large number of tree species which they contain, but since every one of these trees changes its appearance every day as the leaves

unfold, there is an endless number of combinations for those who are on the alert to watch them. At this season, too, the air is full of an opaline haze which softens every color and smooths every rugged line, so that the prospect from any eminence which commands a forest-view is one to be studied and remembered. One who fails to note these daily transformations in our individual trees and in our woodlands loses every year one of the most characteristic and impressive phases of American landscape beauty.

Parks, Parkways and Pleasure-grounds.—I.

THIS is the title of an instructive paper in the May number of the *Engineering Magazine*, by Mr. Frederick Law Olmsted, who has had a more varied experience in designing municipal pleasure-grounds than any man in America, and, perhaps, than any man in the world. Of course, different kinds of recreation call for different types of public pleasure-grounds, and Mr. Olmsted names the plaza or formal tree-shaded promenade as the simplest. Such works are practically out-of-door halls, where the people may meet in a social way, and their use is better understood in southern Europe and Spanish America than in our country. More necessary still are open-air nurseries or playgrounds, which ought to be provided in every crowded neighborhood, where mothers and small children may find opportunity to rest and sleep and play in the open air. Playgrounds for youth or open-air gymnasia can be more remote from the crowded wards of the city. Then there are luxuries, like flower gardens, which the city ought to provide, but not until after the more essential kinds of public grounds have been secured. Of course, all these promenades, concert-grounds, nurseries, playgrounds and gardens can be combined in one way or another, and they need take a comparatively small space of the city area. But, besides these is the park proper, which is intended to provide rural scenery as a source of refreshment for townspeople. The wealthy seek change of scene in travel, but those who cannot afford this ought to have available natural scenery, and to furnish this a considerable area of land is needed. In our large cities it requires too much time to get into the country, and entrance to the fields is forbidden when it is reached, and, therefore, it becomes necessary for every large city to secure for the use and enjoyment of its people such neighboring fields and woods, pond-sides and river-banks, valleys and hills as may be made to present fine scenery of one kind or another.

On the subject of governing parks of this kind, Mr. Olmsted says:

> The providing and managing of reservations of scenery is the highest function and most difficult task of the commissioners or directors of park works. Public squares, gardens, playgrounds and promenades may be well or badly constructed, but no questions are likely to arise in connection therewith which are beyond the comprehension of the ordinary man of affairs. If scenic parks, on the other hand, are to be well placed, well bounded, well arranged, and, above all, well preserved, the directors of the work need to be more than ordinary men. Real-estate dealers must, necessarily, be excluded from the management; politicians, also, if the work is to run smoothly. The work is not purely executive, like the work of directing sewer construction or street cleaning, which may best be done by single responsible chiefs. The direction of park works may probably best rest with a small body of cultivated men, public-spirited enough to serve without pay, who should regard themselves and be regarded as a board of trustees, and who, as such, should make it their first duty to hand down unharmed from one generation to the next the treasure of scenery which the city has placed in their care. Public libraries and public art museums are created and managed by boards of trustees. For similar reasons public parks should be similarly governed.
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> A landscape park requires, more than most works of men, continuity of management. Its perfecting is a slow process. Its directors must thoroughly apprehend the fact that the beauty of its landscape is all that justifies the existence of a large public open space in the midst, or even on the immediate borders, of a town; and they must see to it that each newly-appointed member of the governing body shall be grounded in this truth. Holding to the supreme value of fine scenery, they will take pains to subordinate every necessary construction, and to perfect the essence of the park, which is its landscape, before elaborating details or accessories, such as sculptured gates or gilded fountains, however appropriately or beautifully they may be designed. As trustees of park scenery they will be especially watchful to prevent injury thereto from the intrusion of incongruous or obstrusive structures, statues, gardens (whether floral, botanic or zoölogic), speedways or any other instruments of special modes of recreation, however desirable such may be in their proper place. If men can be found to thus serve cities as trustees of scenic or rural parks they will assuredly be entirely competent to serve at the same time as providers and guardians of those smaller and more numerous urban spaces in which every means of recreation, excepting scenery, may best be provided.
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> In selecting park sites and boundaries the first problem usually is to choose from the lands sufficiently vacant or cheap to be considered, (1) those reasonably accessible and moderately large tracts which are capable of presenting agreeable secluded scenery, and (2) those easily accessible or intervening small tracts which may most cheaply be adapted to serve as local playgrounds or the like. A visit and report from a professional park designer will prove valuable, even at this earliest stage of operations. Grounds of the local playground class may safely be selected in accordance with considerations of cheapness and a reasonably equitable distribution, but the wise selection of even small landscape-parks requires much careful study. It is desirable that a city's parks of this class should present scenery of differing types. It is desirable that the boundaries of each should be so placed as to include all essential elements of the local scenery and to produce the utmost possible seclusion and sense of indefinite extent, as well as to make it possible to build boundary roads or streets upon good lines and fair grades. Public grounds of every class are best bounded by streets; otherwise, there is no means of insuring the desirable fronting of buildings toward the public domain. In spite of a common popular prejudice to the contrary, it will generally be found that concave, rather than convex, portions of the earth's surface are to be preferred for park sites. If the course of brooks, streams or rivers can be included in parks, or in strips of public land connecting park with park, or park with town, several advantages will be secured at one stroke. The natural surface-drainage channels will be retained under public control where they belong; they will be surely defended from pollution; their banks will offer agreeable public promenades; while the adjacent boundary roads, one on either hand, will furnish the contiguous building land with an attractive frontage. Where such stream-including strips are broad enough to permit the opening of a distinctively pleasure drive entirely separate from the boundary roads, the ground should be classed as a park. Where the boundary roads are the only roads, the whole strip is properly called a parkway; and this name is retained even when the space between the boundary roads is reduced to lowest terms and becomes nothing more than a shaded green ribbon, devoted, perhaps, to the separate use of the otherwise dangerous electric cars. In other words, parkways, like parks, may be absolutely formal or strikingly picturesque, according to circumstances. Both will generally be formal when they occupy confined urban spaces bounded by dominating buildings. Both will generally become picturesque as soon as, or wherever, opportunity offers.
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> After adequate squares and playgrounds, two or three local landscape parks, and the most necessary connecting parkways shall have been provided, it may next be advisable to secure one or more large parks, or even one or more reservations of remoter and wilder lands. In a city of five hundred thousand inhabitants a park of five hundred acres, however judiciously located, is soon so much frequented as necessarily to lose much of its rurality; in other words, much of its special power to refresh and charm. The necessarily broad roads, the numerous footways, the swarms of carriages and people, all call to mind the town, and in a measure offset the good effect of the park scenery. It is then that it becomes advisable to go still further afield, in order to acquire and hold in reserve additional domains of scenery, such as Boston has lately acquired in the Blue Hills and the Middlesex Fells. In selecting such domains, however, no new principles come into play. As in selecting sites for parks, so here it is always to be borne in mind that provision and preservation of scenery is the purpose held in view, and that demarcation of acquired lands is to be determined accordingly.

Botanical Notes from Texas.—XXV.

Wayside Flowers.—The spreading Senebiera didyma is certainly entitled to this name. In the cities of the state, and as far north as Little Rock, Arkansas, it is very common everywhere, underfoot along the streets and often attempting to climb the exposed brick walls of buildings. The species may readily be detected by its variously cut leaves, the strong and almost fetid volatile oil which it exhales, and by the twin pods which justify its individual name.

The East Indian Strawberry, Fragaria Indica, now commonly introduced into the more eastern Gulf states, is often to be seen in the streets of Texas cities. It has a large foliaceous calyx, yellow flowers, and bears insipid dark red fruit. In riding through southern Arkansas, I heard at a railway station enterprising boys shouting "fine ripe strawberries"; they were selling this species for the genuine article. After the boys had received their ten cents a box for the berries and the train had moved on, the profanity of the travelers who tested the fruit did the sellers no harm. All the Texas species of Tissa delight to be literally in the way and where they are most liable to be trodden upon. We have several other small Pinks which delight in human society, and they are more common in cities than in the country. Mollugo verticillata, Carpet-weed, is far more abundant along railways and wagon-roads and in streets than elsewhere. Its more rare relative, M. Cerviana, is sure to develop the same living ways.

Monolepis chenopodioides is another plant which, though called a desert plant, is common by the wayside in many of the cities of Texas, from Galveston northward and westward. It belongs to the Chenopods, most of which are denizens of towns and cultivated fields, as much as is the species once thought to be peculiar in that respect, and so named Chenopodium urbicum. C. ambrosioides, Mexican Tea, and its variety, Anthelminticum, Wormseed, are seldom to be seen outside of towns and cities. The so far as known exclusively Texan Galactia, G. heterophylla, wherever I have seen it, takes readily to town life, or clings with tenacity to its old ways of living in spite of town building. Hundreds of plants of this species grow in Llano in the streets, close to the wagon tracks, and often on the ridges between the tracks.

The misnamed California "Clovers," Medics, humble yellow-flowered relatives of Alfalfa, are oftener found in cities and along railways than elsewhere. The species with purple-spotted leaves is rarer than that with unmarked and smaller leaflets. Both species may, in fruit, be easily distinguished from true Clovers by their tightly coiled bristly pods. The Geranium-like Erodium cicutarium, Alfilaria, Pin Clover, another misnomer, is cultivated sometimes for forage. I have only seen it between the ties on railways. E. macrophyllum grows at Austin in the state-house grounds. E. Texanum is common south-westward, especially around San Marcos.

Some Grasses have assumed the same ways of living as their supposed higher and more aristocratic plant neighbors. Common Buffalo Grass is not so near extinction as some of its botanical friends have intimated. The paucity of the seed-bearing form may largely tend to keep the species from literal dissemination, but the stoloniferous way of growing that both forms possess will keep it common. It is creeping along railways everywhere within its extended range, from Galveston Island to Manitoba, and from eastern Kansas to the mountains. The species is more liable to become a sharp competitor of Bermuda Grass than to become exterminated. The handsome Oplismenus setarius shows the same tendency as Buffalo Grass, and leaves woods for railways when an opportunity presents itself. This grass is sometimes utilized for "hanging basket" culture, for which it is well adapted. Its stems may become three to four feet long. It grows from Louisiana to San Antonio Springs, and nearly across eastern Texas from the Gulf to the Red River, so it is easily attainable.

The philosophy of the ways of living that town and wayside plants have adopted may rest in the fact that most of these are creeping or, at least, prostrate plants. Pressing them in close contact with the ground would enable them to root more readily, and so to grow and spread more rapidly. The so-called introduced useful plants are more common in cities, as they usually have their seeds first scattered there. Botanists soon learn that towns, cemeteries, and especially railways, afford excellent fields for the study and collection of plants. The broken ground there, the seeds scattered by human beings or live stock as they ride along, and the usually fenced condition of railways, allow plants to remain there in security, while they are destroyed in the pastures. There also introduced plants find lodgment and protection.

Corsicana, Tex. *E. N. Plank.*

The Saguenay Region.—II.

AUGUST is the month for the ripening of blueberries in this latitude. They grow in the greatest profusion on the rocky ridges and in the Pine-lands. Two kinds were noticed, the Dwarf Blueberry, Vaccinium Pennsylvanicum, and the Canada Blueberry. Both mature here at essentially the same time, though the two differ in this respect by several weeks farther south. In the vicinity of Cnicago the Dwarf Blueberry is the earliest of all, ripening the last of June, and the Canada Blueberry comes on three or four weeks afterward. This difference in time lessens as we go northward. The berries were large and of the best quality. They hang upon the bushes till all are ripe, and remain plump and fresh until the early frost overtakes them. The two kinds were frequently so intermingled as to make it difficult to decide whether there was any choice of soil or habitat by either species, as is generally the case in other localities where I have seen them, the Dwarf Blueberry taking to dry and rocky land, and the Canada Blueberry to damper conditions. The blueberry season makes a kind of harvest-time for the farmers and villagers, who go out to gather them, the entire household often taking part in the work. Few but French Canadians live here permanently, and they are mostly poor or with small holdings. The sale of the Bluets, as they call the berries, supplements their scanty incomes, although they dispose of them at one cent a quart. A lady who had been at St. Alphonse for some seasons said that it was looked upon as unprecedented when thirty cents were obtained for twenty-five quarts. The great abundance of the berries and comparative absence of green fruit enable the pickers to gather them with rapidity, and a skillful hand will take from one to two bushels a day. They are partly sold to canning establishments, run by persons who come in for the season, and are partly sent away in boxes. As they chiefly grow on land useless for tillage, and the supply is so great that a large percentage of the berries must annually go to waste, they provide a source of revenue for an indefinite time to come.

Another plant of the Heath family furnishes a product for home consumption, the Cowberry, or Mountain Cranberry, Vaccinium Vitis-Idæa. It is used like the common cranberry. Before I had found them in the fields some were handed me by a farmer in whose house I happened to be. Finding they were not the common cranberry, I inquired where they grew, and subsequently came across them on the rocks. The shining leaves and bright red berries, borne a little above the surface of the ground on short stems, were always an attractive sight. The fair round fruit suggested the propriety of one of the common names they have among the French Canadians, Pommes de Terre, Earth Apples, which seems even more appropriate than when applied to the common potato. They are also known to the people by the same name they bear among the French of the Old World, Aigrelles ponctuées, or Dotted Bilberries, since the under surface of the leaves is sprinkled with blackish points. The Cowberry was sometimes associated with another slender vine or prostrate shrub, the

Crowberry, Empetrum nigrum. I found this in the greatest quantities on the rocks along the St. Lawrence and the Saguenay in the vicinity of Tadousac. The blackberries contrast strongly in color with the red globes of the cowberry, and patches of the two growing together on the rocks formed charming little fruit gardens. The berries, which the Canadians call Camarines, are used in the same way as the cowberries, although they seem less serviceable and rather seedy with their eight or nine hard nutlets, though the flesh has an agreeable acid taste. Still another low plant was sometimes found in the same localities, or even mixed with these where there is a thin bed of peat-mold in the hollows of the rocks. I refer to Comandra livida. Its leaves resemble those of our common C. umbellata, but are generally larger. The fruit looks quite different, and is rather handsome. The woody roots or stems creep among the moss, sending up herbaceous stems about six inches high, which bear one or more red berries in the axils of the leaves. These are very ornamental when seen among the smooth and thickish oval leaves.

These peat mosses on the rocks, or nearly up to the summit of some of the ridges, were a frequent cause of surprise. They brought plants of very different habits into close proximity. A hollow space to catch the rainfall, or into which water ran from neighboring rocks a little higher, seemed all that was needful for Sphagnum and its characteristic plants. It was but a step from a barren, glaciated surface of rock, or one sprinkled with a few plants, to one of these beds of peat, where one would be in the midst of Cassandra calyculata, Ledum or some kindred growth. The moist air and frequent showers or fogs did not often permit the hollows to become entirely dry, and the spongy sphagnum well served its purpose of a mulch for such plants as root in the soil formed by its decay.

Ledum latifolium and Kalmia latifolia were not confined to such places, but were common in sandy land. Though mostly found in fruit, some were seen in flower as late as the end of August. Cornus Canadensis was not infrequent in flower but a few days before. Besides the Ericaceous plants that have been mentioned, the other more noticeable ones were Epigæa repens, Chimaphila umbellata, Gaultheria procumbens, Pyrola elliptica and P. secunda. Monotropa Hypopitis was frequent in the Hemlock woods at Tadousac. Trailing over the ground in the deep shade of evergreens was the slender Linnæa borealis. A familiar shrub, common about the Great Lakes in the sand, Shepherdia Canadensis, here grew upon the rocks. In the peat bogs and Tamarack swamps the persistent calyces and expanded style of the Pitcher-plant were still conspicuous, simulating some deep purple flower.

The rocks were often enlivened by the presence of the blue bells of Campanula rotundifolia, which sprang from any bit of soil where it could gain a foothold. It usually appeared under that form which gives it its specific name, with plenty of roundish leaves growing at the base of stems. Though the taller form with linear leaves, the variety Langsdorffiana, is the one most frequently seen in the vicinity of Chicago, the typical form with the round leaves grows upon the steep sides of sand-hills in the Pine-barrens. Similar conditions of growth have brought about quite the same results, and produced the features which are more habitual to it in its rocky home, for it seems to make but little difference whether it roots in the scanty soil of some rock crevice or in rock that has been ground to fine silicious sand and piled by the wind into a dune, and fixed in place by a scanty growth of shrubs and trees. This is a feature shown by several plants which have gained a lodgment on the dunes, but are in other places known as denizens of the rocks. One of these is the Pale Corydalis, C. glauca. It needs a more generous supply of soil than the Harebell, being a plant of larger growth. It was specially frequent on the rocky inclines facing Ha-ha Bay, where its smooth glaucous stems and yellow-tipped purplish petals formed a dainty combination amid the general barrenness. The usual wild Strawberry of the region was Fragaria vesca, well marked by long conical berries, shaped like a sugar-loaf, and by its superficial akenes. Here, as well as in other places where I have met with it, the plant seems most at home in its typical form among the rocks, and more common in the northern latitudes.

Chicago, Ill. *E. J. Hill.*

New or Little-known Plants.

Miltonia vexillaria, "Fairy Queen."

THIS chaste and beautiful variety has now been in flower for three weeks, and the photograph, which was taken a fortnight ago and is reproduced on page 195, does not do it justice. The plant is growing in a seven-inch pan, having four leading growths, carrying nine spikes and fifty-three flowers, each flower measuring more than three and a half inches in length by three inches in breadth. The lip is of the purest white, with a rich lemon crest; the sepals and petals are broad and overlapping—sepals white, and the petals white slightly and faintly tinged with pink at the base on their first opening, but gradually becoming pure white. Several forms of so-called white Miltonias have been introduced, such as Cobbiana, Albescens, Alba, etc., but "Fairy Queen" stands to-day unquestioned, and justly so, as the only pure form yet introduced.

This plant was secured four years ago, having at that time two bulbs and one lead. It has been grown with our other Miltonias in a temperature of sixty degrees by day and fifty-five degrees at night, but during very severe weather we allow the temperature to fall a trifle lower. We grow them at the west end of our Odontoglossum-house all the year round, and every Miltonia is just as perfect as the one shown in the illustration. After the flowering season we keep them partially at a so-called rest, not giving them so much water at the roots, but maintaining plenty of atmospheric moisture. When they commence to grow and young roots are emitted from the base of the growth they are overhauled and such plants as require repotting are attended to. The best potting material is made of equal parts of good fibrous peat or Fern root, with the fine part sifted out, and fresh sphagnum picked in small pieces, with finely sifted dry cow-manure sprinkled through the whole. The pots are filled to a little less than two-thirds of their capacity with clean, broken crocks, and these are covered with sphagnum to insure perfect drainage. In potting, care must be taken to set the plant firmly, keeping its base about an inch above the rim of the pot. The plant should be kept moist, although water should be given cautiously until the roots are moving actively in the new material and the growths are developing. When the bulbs begin to form, water must be given freely; in fact, they must never be allowed to get dry until they have developed their flowers.

The greatest enemies to Miltonias are yellow thrips, which must be exterminated as soon as they appear; sponging with tobacco-water and fumigating constantly will keep them down. The appearance of spider and thrips is a sure sign of too high temperature and dry atmosphere.

Langwater Gardens, North Easton, Mass. *William Robinson.*

Plant Notes.

Prunus pendula.—This fine, early-flowering Cherry was in full bloom here a fortnight ago. The plant comes to us from Japan, and, although introduced many years ago, as yet it is comparatively rare in gardens. It is a tree of pendulous habit and covered, before the opening of the leaves, with pink flowers, profusely borne on the old wood and on that of the previous season's growth. The great abundance, the charming color of the flowers and the graceful habits of growth give it a very distinguished appearance among our early-blooming plants. It is perfectly hardy and succeeds in any good soil and fairly sheltered situation. The only drawback is that occasionally the

flower-buds are partially destroyed by late frosts. It is propagated by grafting, using Prunus Mahaleb or P. Myrobalana for stock. There is some confusion in names among the nurserymen in regard to this plant; sometimes it appears among shrubs, sometimes among the trees; at times it is a Cerasus, at others it is a Prunus; generally the species is given as Rosea pendula, but Japonica or Sinensis pendula is also used. P. Miqueliana is also in bloom now, and for garden use it resembles P. pendula in everything apparently, except the color of the flowers. They are almost white. Both these trees have been figured in GARDEN AND FOREST, vol. i., pp. 198, 199. An illustration of an old and large specimen of P. pendula was also published in vol. ii., p. 487.

PRUNUS TRILOBA.—Another beautiful plant now in flower is the comparatively rare single form of the well-known Prunus triloba flore plena. This plant has been grown in the Arnold Arboretum for some time, and this year it has bloomed much more abundantly than it usually does. It is a shrub of moderate height and branching habit, resembling the double kind in foliage and growth, and requiring nearly the same general treatment. It seems, however, a trifle more tender, and perhaps a little more subject to that inscrutable disease which has been called "Japanese-chic-back." It should be given a sheltered position, and the planter must wait patiently for his reward. The flowers are lively rose-pink, which is deeper on the outer portions of the petals, shading to the centre, and their effect is much heightened by the presence of stamens and pistils, which impart a lightness and airiness to the flower wholly lacking in the double form. The propagation is by grafting with P. Myrobalana as the stock. The plant is not, probably, in the hands of every nurseryman as yet, but it would not be difficult to work up a stock.

MAGNOLIA STELLATA.—This is the earliest of the Magnolias to flower, and it has conspicuous merit. The flowers are white and borne in great abundance. It comes into bloom a week earlier than the Yulan Magnolias, and, with the exception of M. Kobus, is the hardiest of that division of the genus which flowers before the leaves expand. Although it begins to bloom when young in years and small in stature, it, nevertheless, attains good size. A plant in a garden on Jersey City Heights is more than twelve feet high and of equal diameter, and produces annually thousands of blossoms. In congenial soil the growth is good, but by no means as rapid as that of other

Fig. 30.—Miltonia vexillaria, "Fairy Queen," in Langwater Gardens, North Easton, Massachusetts.—See page 194.

members of the family. Time is needed to produce a large plant, but, as nothing is lost by winter-killing, the grand result is, upon the whole, favorable when compared with that of M. conspicua, M. Lennei or M. Soulangeana. The plant needs a deep, rich soil, and, after it is well established, should have plenty of manure. Protect at first with a mulch of leaves in winter, and with evergreen boughs. The mulching of leaves should always be given, as it sometimes serves to retard the time of blooming, which is very desirable in our uncertain northern climate. It is a good plan to water well during the hot July and August weather—not a little sprinkling every day, but water by bucketsful once or twice a week. The propagation is by layers and by grafts, the last method producing the best plants. M. stellata was one of the plants sent to the Parsons' Nurseries twenty-five years ago by Dr. Hall, after whom it is sometimes called M. Halleana.

Tulipa sylvestris.—This is the common Wild Tulip and is sometimes called by bulb-dealers Tulipa fragrans and T. Florentina odorata. It is one of the most beautiful and graceful of all the Tulip species, and deserves a place in every garden where herbaceous plants are cherished. It is now in bloom, coming a little later than the so-called early Tulips, a week or more later than the Duc van Tholls. It is a native of Europe, and has been long in cultivation. The flowers are large and bright yellow; they are fragrant, this quality being sufficiently well marked to have given the plant the synonyms quoted above. The great beauty of the plant is the graceful form of the perianth and the pleasing way in which the flowers are borne on the stalks without any trace of the stiffness which so often mars garden Tulips. The segments of the perianth are long and narrow, and the flower buds upon its stem; occasionally two flowers are produced upon the same peduncle. No difficulty attends its cultivation; a deep mellow loam, well drained, and plenty of well-rotted manure are the only requirements. In fact, it grows so easily that it sometimes establishes itself in gardens as a veritable Wild Tulip, the only care required under these circumstances being not to disturb the bulbs. Omit the annual lifting and curing, and let them grow on with the Crocus and Daffodils, disturbing them only when they become crowded. The bulbs are inexpensive and easily obtainable.

Triteleia uniflora.—The "Spring Star Flower" is still in bloom, although it begins to flower with the early hardy bulbs. In ordinary seasons it flowers in this latitude in March, and it is quite a showy plant when grown in moderately large clumps. The star-like flowers are for the most part white, with a faint marking round the segments and throat of pale lilac, or they are a delicate lilac as they open and quickly fade to white on the upper surface. The leaves are about six inches long and quite narrow. This species is a native of Buenos Ayres, and there is a large-flowered variety of it called Conspicua, which is even prettier than the type. To have the plants in flower as early as possible they should be given, of course, a sunny and well-drained situation. This Triteleia makes a fine pot plant in late winter for a cool house, if about a dozen bulbs are set in a six-inch pot in September and kept in a cold frame until about a fortnight before they are wanted to flower.

Papaver Alpinum.—Among all the beautiful plants and flowers of the season there are none more dainty and attractive in leaf and flower than the Alpine Poppies. The neat little mound of finely cut glabrous foliage is alone beautiful, but when above this many flowers of dainty tissue spring in air on slender stems the picture is one great charm. The usual colors of Alpine Poppies are yellow, white and light pinks. These are also often in combinations, as, for instance, a yellow edging on a white ground. P. nudicaule, which is botanically almost identical with P. Alpinum, has leaves less finely cut, and among these may be found beautiful orange-scarlet flowers, and it seems to be most frequently grown in gardens. The cultivation of Alpine Poppies is very simple. The seed may be sown either in seed-beds or in the borders, preferably early in the year. The young plants require some care in transplanting, but can be successfully moved at any time. Early-sown seeds will make flowering plants the same season, but will be at their best the second year. While true perennials, these plants are apt to go off from excessive flowering and dampness. Their requirements are perfectly drained places where no water will lodge at their base and a top-dressing over their roots in early spring, as the frosts sometimes are apt to lift them in the early year.

Iris rubro-marginata.—The flowering season of the rhizomatous Irises commences here in April with the flowering of this little Central Asia Minor Iris. I. rubro-marginata is allied to I. pumila, which is very familiar in gardens as a dwarf border-plant, usually flowering in May. The leaves of this species are falcate, two to four inches high, margined usually with red. The rhizomes are short and short-creeping. The flowers are small, of beautiful compact form, with large standards and of a peculiar vinous color, with metallic reflections. They are borne in profusion, and the plants at flowering-time are quietly, rather than strikingly, handsome.

Cultural Department.

Chrysanthemums for Specimen Plants.

CHRYSANTHEMUM-PLANTS intended for exhibition should now be well established in six or seven inch pots. If they have been judiciously stopped they will be compact, well-balanced plants. It is important we have a good foundation to begin with. Even at this stage the practiced eye can pick out those best suited for specimens. A poor plant now will make a poor specimen. We should not, however, judge by size only. As a rule, varieties inclined to be tall and rather coarse, even though they may be the largest plants now, do not make the best specimens. In the exhibition height is discounted. There are also many novelties received late in the season, which have all the qualities required to make good plants, although they may now be a stage behind. Portia, Iora, White Louis Bœhmer and Minerva, novelties of last year, were among the largest and handsomest of specimens at the exhibitions. Among novelties of this year which look promising and worth a trial are Burt Eddy, Nellie Elverson, Esther Heacock, Mrs. Henry Robinson, Miss Gladys Spaulding, Miss Maggie Blenkiron, Vice-President Calvat, Nemesis, Radiance, Nyanza and Monsieur R. Dean.

When we look over our plants we shall find that some of the choicest ones have gone prematurely to bloom. This is unsatisfactory. These rarely make good specimens. It is as if they had to start over again. Often, however, they will break out anew, as did Cullingfordii, G. W. Childs, Ivory and Louis Bœhmer one season. At this time these were essential in my collection for color-effect, and, having no choice, I had to persevere with them. Whenever I can afford it I always discard such plants, and when I know of this tendency I always fortify myself with duplicates enough for choice.

For large specimens intended for exhibition we use twelve-inch pots. These are really too large; but as the horticultural societies allow this size, it is not likely that exhibitors will run the risk of losing a premium by stint of pot-room. A specimen plant six feet in diameter, and from eight to nine feet over, is far too unwieldly, and the labor of tying out two dozen of such plants can only be comprehended by those who have tried it.

Our soil is light and moderately rich. We use about one-fifth well-decomposed manure; some of us have profited by the mistake of using more. We prefer to feed the plants later, and stimulants can be applied as needed, much depending upon the condition of the plants with regard to health. Lime in some form should be an ingredient of the soil. Bone-meal, if composted a month, at least, before being used, is probably the best fertilizer. It should not be put in freshly. Lime rubbish, or even coal-ashes, will answer quite well for present purposes. The drainage must be thorough. We pot lightly to avoid the risk of overwatering—a misfortune that befalls some of the most promising plants in their earlier stages. Two inches or more is left for water, and an additional dressing of good soil later.

After being potted, our plants are returned to frames for a week or two, and the sashes are kept on—although abundance of air is given—more as a precaution against heavy rain than anything. When nicely rooted in the new soil the plants are

gradually hardened, and finally placed out-of-doors about the end of May. In the mean time, we continue stopping the shoots. We go over them every day, watchful to take the tips out of any shoots which are making unusual headway. It is important that we keep them closely headed in. Soft shoots break much better than those which have been allowed to make from five to six inches of growth before being topped.

We always find room for two or three dozen small specimens which we grow in six-inch pots from May-struck cuttings, stopping them only once or twice, allowing from ten to twelve blooms to each. Compact-growing varieties, needing few stakes, are best suited for this purpose.

Our stock plants for specimen blooms, cut over in March, have now a good crop of cuttings which should be taken at once for exhibition blooms. For general decorative purpose nearly a month later will be early enough.

The cuttings should be inserted as quickly as possible after being taken, as if wilted to any extent they take a longer time to root, as well as suffer a constitutional loss. Abundance of water will be required for the first few days, and the plants should be shaded when the sun shines. As the rooting goes on, less and less water and shading will be needed, and at the end of three weeks all should be rooted and hardened enough to be potted off or boxed, according to the convenience of the grower.

Wellesley, Mass. *T. D. Hatfield.*

Flower Garden Notes.

MOST of the ornamental-leaved and flowering plants for bedding out can be planted out from the middle to the end of the present month. In this latitude Geraniums can be set out with perfect safety by May 15th, but we prefer to wait until the 20th, so that all the plants may be sufficiently hardened off and that the planting may be done as quickly as possible. Geraniums, Ageratums, Tuberous Begonias and other moderately hardy plants are now in cold frames; the sashes are thrown off, except during cold nights. Begonias dislike direct sunshine, and we run a lath shading over them during the middle of the day. Coleus, Alternanthera, Cannas and other more delicate plants are now in a cool house and will be placed in frames about the middle of the month. From this time copious supplies of water will be needed by all plants in pots or boxes, and special care should always be taken at planting out time to have the balls of earth thoroughly wet. Neglect in this particular is the cause of many plants doing so unsatisfactorily. If a plant is thoroughly pot-bound and dry at the root in addition when set out, no ordinary waterings or rains will penetrate the ball of earth, and a small hollow space should be left around each plant to catch the water.

Among flowering plants Geraniums still hold a leading place, and will, no doubt, always do so. They become rather straggly by August, and heavy showers of rain give them a disheveled appearance. To restrict the growth somewhat, it is the custom with certain growers to plunge the plants out in the pots. This is done in the Public Gardens in Boston, and may be a good plan where a good water-supply is at hand. If plants have no special care, however, after being placed in the beds, this plan would not be successful. I have never been specially struck by the beauty of the Geranium beds in the Boston Public Gardens, and if they are a fair sample of what may be expected from pot-plunged plants, I prefer to stick to the old system. Cannas now occupy a front rank as flowering plants, and deservedly so; for large circular beds and wide borders they are unexcelled. Tuberous Begonias, where heavy or even partial shade can be obtained, are worthy of more extensive cultivation. We have tried them in full sunshine, but even when well watered and mulched they grew unsatisfactorily and burned badly. Begonias love a rich compost and abundant waterings during dry weather. Treated thus they are superior to Zonal Pelargoniums in every way, and the ease with which they are raised and can be kept over winter should commend them to all flower-lovers.

There are many plants now looking a little leggy and ungainly in the greenhouses which can be put to good uses in mixed borders. Among these are Abutilons in variety, Hibiscus, Datura suaveolens and D. cornucopia, Plumbagos and others. Begonias of the fibrous-rooted section will all do well on a partially shaded border, and a mixed assortment of these was as attractive as anything we had last summer. Those of the Rex section are good in rockeries or in any other situation which is rather heavily shaded. Crotons, Pandanus, Caladiums, Dieffenbachias, etc., cannot be exposed here before the middle of June, and the season for them is so short that very few care to go to the trouble of placing them outdoors. Acalyphas, however, prove excellent bedders, and are being used in increasing numbers.

Our early sowings of Stocks and Asters are usually planted out about May 10th; of the first-named, Boston Florist, and of the latter, Queen of the Market, are the earliest. We continue to sow these at intervals of a fortnight until the middle of June for successional crops. Marguerite Carnations, Dianthus, Gaillardias, Verbenas, etc., are planted about the same time as Stocks and Asters. Zinnias, Phlox Drummondi, Cockscombs, Torenias, Salvias and others are left ten days later. A good number of these are dotted in perennial borders to brighten them up from the end of July onward, when otherwise these borders would present a decidedly unattractive appearance. Seedlings of perennials should now be planted out in nursery-rows and transferred to permanent quarters in the fall. Perennial borders will require hoeing and raking to keep them neat; few plants will yet require staking.

The past winter proved a destructive one here; Helianthus in variety were killed outright in some situations, something which has not happened for years before. This damage is due to the light protection of snow we had all winter long. On the other hand, Tritonias, Pyrethrums, double and single, and Anemone Japonica have come through unscathed, and, although usually these are considered tender, they withstood a temperature of ten degrees below zero, with no snow or other covering to protect them. Roses are now breaking nicely. We give these a mulching of good cow-manure all over the beds during this month. This keeps the roots cooler and retains moisture, very essential things in the cultivation of hardy Roses in America.

Grass verges have all been gone over with the edging-iron recently, and the verges will require clipping weekly from this time onward. Nothing so much adds to the appearance of a place as good lawns and well-kept verges, yet even in some of our leading parks the edges of the flower-beds do not seem to have had an edging-iron or pair of shears over them during the whole season; no matter how well a bed may be planted, if its verges are slovenly kept it is something of an eyesore to those who have been properly trained in their profession.

Taunton, Mass. *W. N. Craig.*

Early-flowering Hardy Perennials.

THERE are few hardy herbaceous plants in early spring that give as much pleasure and produce such showy flowers as a good strong, healthy specimen of Adonis vernalis. The ground is hardly free from frost when it begins to push up its stems, and very soon the stems are crowned with large, yellow, anemone-like flowers. I have had several complaints about this plant from people who say they find it rather difficult to grow and flower successfully. It does admirably here, and the treatment given to it is very simple. It is grown in a border where it gets the full benefit of the sun all day. Care is taken, when planting, that it is not put beside any large plants that will shade it or rob it of its nourishment. Every third year the plants are taken up carefully and the border is double dug and enriched with manure. It is not beneficial to disturb the plant oftener than this. Small plants are not as satisfactory as large ones. The small plants only bloom for a short time in April; but large, strong plants bloom well into May. Hence the reason for not dividing them too much. Although this plant comes from southern Europe, it is one of our hardiest of perennials. It never needs protection of any kind in our very severest winters.

The Hepaticas are among our earliest flowers, and most of them are over now. Under the shade of a Hemlock-tree, a few flowers still linger on Hepatica angulosa, the best of all of them. It is a beautiful plant, and its lovely sky-blue flowers are much larger and showier than those of H. triloba or H. acutiloba. It is quite hardy and delights in a rather shady position with deep, rich, moist soil.

Primula denticulata makes a good rock garden, and a large mass of plants are flowering well at this time. The flowers are produced in dense round heads on stems six to eight inches high; they are of a deep lilac color. The plant comes from India, but is quite hardy here. It thrives in moderately moist soil, and the flowers last longer if they are slightly shaded.

The large-leaved section of the genus Saxifraga is quite conspicuous in the herbaceous border now. In early spring, in exposed positions, the large evergreen leaves are rather unsightly after our severe winters; but the young leaves soon expand, and are almost full grown, if planted in a warm position, before the plants are in full bloom. S. cordifolia has

large heart-shaped leaves six to ten inches across. Its rose-colored flowers are produced in large panicles on stout stems nearly a foot long. S. crassifolia is also in bloom, and is closely allied to the above. It has large, leathery, oblong leaves. The flowers are of a reddish color, and are also produced in large panicles on thick stalks eight to ten inches high. Both of the above plants come from Siberia and are very hardy. They are desirable for the rock garden, and if they have partial shade their large bold leaves are not so much destroyed in winter. The soil they thrive best in is a light rich one, where they make large healthy leaves, which are attractive when the plants are not in bloom.

The White Rock Cress, Arabis albida, is at its best now. We use it in the front row of the herbaceous border, where its racemes of white fragrant flowers are seen to the best advantage.

Phlox subulata, the Moss-pink of old-fashioned gardens, is so full of bloom at this time that its leaves can hardly be seen. It is an exceptionally good plant for a dry sunny border, and seems to grow the best in the dry summer weather.

Cambridge, Mass. *R. Cameron.*

Begonias for Bedding Purposes.

APART from the tuberous-rooted Begonias there are several species and varieties which, on account of their handsome flowers and foliage are very suitable for the out-door garden during the warm months. B. Evansiana, from eastern Asia, is quite hardy in Washington, having stood out in the Botanic Garden for the past thirty years. The roots, of course, die out, but the little bulbils which form around the axils of the leaves come up thickly in the spring and form nice blooming plants in a few weeks. B. Evansiana is valuable both for its leaves and flowers. The best of those valued for their flowers alone is the old B. coccinea; it stands the sun well; in fact, the more sun it gets the better it likes it. The flowers are produced in large pendulous clusters, and, as the specific name denotes, they are red; the female flowers are the showiest, lasting a long time in perfection. This species revels in very rich soil; large plants in small tubs when in flower—and you scarcely ever see them without flowers—are very desirable to place on lawns around a dwelling. The best manure is that from the poultry-yard. Mix it up with equal parts of loam and leaf-soil several weeks in advance of the time when it will be required for use, spread it out and let the sun dry it thoroughly; this makes the plants put on a strong growth, producing a wealth of bloom that is remarkable.

The hybrid called President Carnot is a stronger grower, standing the sun equally well; it makes larger trusses of flowers than Begonia coccinea, but not so many of them, and it is more serviceable as a winter bloomer. B. caroliniæfolia, a species forming a thick succulent stem, is good for its old palmate leaves. B. Weltoniensis and B. Dregei are free bloomers when planted in partial shade; they need open soil and must be kept watered. B. Vernon sometimes does admirably, but it is an erratic grower here. This variety comes true from seed, the seedlings blooming when only a few weeks old.

Begonia Erfordiæ is by far the best of the recent introductions for bedding, and it has proved itself a first-rate acquisition during the two seasons I have tried it; there are two colors among plants of it raised from seed, a clear pink and a creamy white; the pink is the most valuable, as there are other whites superior to this. B. Erfordiæ may be said to flower itself to death, as cuttings of the flowering wood are next to useless; they continue flowering without making side-shoots. It seeds freely, however, and should be included among the plants for spring sales by those who grow bedding-plants. B. Wettsteinii has coccinea blood in it, although it is a more fragile grower. B. Diadema, in a slightly shaded place, makes a nice display with its white spotted leaves, and B. alba-picta is good for the same purpose. Among the creeping varieties, B. scandens does well when grown in good soil and kept watered; the flowers of this species are snow-white, very small, but they appear in great numbers.

Botanic Garden, Washington. *G. W. Oliver.*

Bedding Out.—Where much summer bedding is done the planting-out season is always a busy time, and much time is saved by having the designs and planting plans all ready beforehand. The principal points to be observed are the tasteful blending of colors and the most agreeable contrasts. The selection of plants will be largely determined by the location and size of the beds and borders. If the borders and beds, for example, have a background, or if they are situated so that the plants are intended to form a screen to break an undesirable view, the plants for the back row should be tall. The best effect would then undoubtedly be obtained by planting in lines lowering gradually toward the front. If the borders are near the margin of a lawn where the view should not be obstructed, a better effect is obtained by having a groundwork of one kind of plants with other sorts planted through it in masses. Plants of the medium dwarf sorts may be used instead of regular carpet-bedding kinds, which are apt to look too squatty in a border.

Beds must also be filled with plants corresponding to their size and position. Those at a distance in prominent positions require something large and showy, and for this purpose Cannas are most admirably adapted. A mass of the scarlet Madame Crozy, with a border of Caladium esculentum gives a good effect, while for those nearer the walks low-growing plants should be chosen. It sometimes happens that beds are placed in a shady position, in which case soft-wooded or flowering plants would be far from satisfactory, but such plants as Yuccas and Agaves should be used, the tallest plants being placed in the centre, and the others graduating to the edge, finished with a border of low-growing Echeverias.

Tarrytown, N. Y. *William Scott.*

Nymphæa Laydekeri rosea.—This is one of the best of the small-flowering Water-lilies for general use either as an ornamental plant or for cut flowers. While it grows as freely as any of the other kinds, it has baffled all attempts at propagation, so far as known. The plant keeps on growing from the same crown, forming a thick succulent stem, the lower part of which is continually decaying as the top makes new growths. I have tried to increase it in various ways, but never have succeeded in even starting a lateral growth, and the worst of it is, the plant usually dies if it is disturbed too much. I have killed four plants already, and am as far from a solution of the problem as ever. Several other people have tried to propagate it, with like results. It sometimes produces seeds, but they do not come true. I am inclined to believe that the best way to raise it is to cross-fertilize the two parents every time seed is wanted, and thereby renew it in the same manner in which it was originally produced. Its parents are said to be the Chinese Nymphæa pygmæa, fertilized with pollen from the pink variety of N. alba. I am the more inclined to believe these to be its parents, because, for want of the flowers of the last-named kind, I have tried pollen of a dark form of N. odorata rosea on flowers of N. pygmæa with successful results. The flowers of this hybrid are nearly of the same color as those of N. Laydekeri rosea; there are more petals to the flower and the shape is more star-like.

Botanic Garden, Washington. *G. W. Oliver.*

Correspondence.

Notes from a West Virginia Garden.

To the Editor of Garden and Forest:

Sir,—Among many shrubs now in bloom at Rose Brake, Xanthoceros sorbifolia (see Garden and Forest, vol. vi., p. 285) is the most beautiful. It is now a compact bush, five feet in height and is covered with its delicate blossoms, as large as those of the Weigelia. They are pure white, with centres of a pale greenish lemon color when they first open, and gradually deepening to a peculiar shade of deep red. The Xanthroceros remains in bloom a week or ten days, according to the weather, and is a very showy and striking acquisition to our list of hardy shrubs. The foliage is well developed at present only on the lower limbs. It resembles that of the Mountain Ash, as its specific name indicates, but is darker and more glossy. The habit of the shrub is graceful and compact, so that it is attractive at all seasons and should have a place of honor in the garden. I wish some one would give it a prettier name.

The wild garden and the rockery are now most interesting. Two varieties of Senecio are flowering, both native to our woods. These are the interesting S. aureus (Squaw-weed), with its beautiful purple-lined leaves and heads of showy yellow composite flowers and its taller variety, obovatus. Phlox subulata is still flowering, and P. divaricata is very pretty now in the woods, but, though easy to transplant, it does not flourish in the heavy clay soil of our garden. It is not an aggressive plant and is easily discouraged by the encroachments of grass or perennials of strong growth. It seems to require the rich loam, partial shade and leaf-mulching of open woodlands for its best development. It is such a charming plant that it is a pity we cannot give it the conditions it requires. It seems to me the most refined and pleasing of all the Phloxes. (P. divaricata was figured in Garden and Forest, vol. vii., p. 256.—Ed.)

Veronica Buxbaumi is a bright-eyed, cheerful little plant,

which has wandered here from Europe and is desirable for the rockery because of its hardiness, its very early and profuse bloom, and the extraordinary duration of its time of flowering. How it came here is a mystery, but it suddenly appeared one spring in a neglected border and has held its own ever since. It begins to bloom in March and thrives on scanty soil. Saponaria ocymoides is a showy little trailer, also from Europe, just beginning to open its small pink flowers. It is useful and pretty when planted in a crevice of the rocks, which it curtains with its delicate bloom. It is one of the little plants to which we become greatly attached. Its near neighbor, S. Japonica, does not bloom until July.

Mertensia Virginica is now beginning to fade. This is an admirable plant for massing. One can hardly have too much of it in the wild garden, where its sheets of sky-blue are very effective at a time when so few herbaceous perennials are yet in bloom. We have planted large clumps of it at the foot of the rocks, and here the wild Columbine nods to it from the cracks and crannies above, contrasting its red and yellow blossoms with the dainty azure of the Mertensia, and forming a beautiful picture such as may often be seen in our native woods.

To-day, May the seventh, I plucked the first Rose from a bush of Rosa cinnamomea, the Rose Tangle, among the rocks.

Shepherdstown, W. Va. *Danske Dandridge.*

The Exhibition of the National Sculpture Society.

To the Editor of GARDEN AND FOREST:

Sir,—The exhibition of works of sculpture in connection with gardening art, now open in the Fine Arts Building, on Fifty-seventh Street, is much more genuinely successful than could have been expected. For one thing, less has been attempted than we were led to believe would be the case by the anticipatory circular issued some weeks ago and then commented upon in the editorial columns of GARDEN AND FOREST. No effort has been made to show, or even to suggest, schemes of landscape-gardening, or even of naturalistic gardening on a small scale; and, of course, these were the schemes least well adapted for treatment in a restricted and covered space, with such plants as could be supplied in pots, and without the possibility of using expanses of grass. And, in the second place, in treating the formal gardening ideas which alone have been attempted, architectural elements of a more important and effective sort have been achieved than one might have thought would be attempted for so transitory a purpose.

As deputies of the National Sculpture Society, the first care of the projectors was for their own art. They wanted to show, not the possibilities and the attractions of formal gardening as such, but the essential service it can render as a setting for works of sculpture and the architectural elements which are their natural, and often their indispensable, accompaniments. They wanted to convince the public that all kinds of statuary suitable for outdoor use might be more artistically and effectively used than any of them are to-day in this country, and especially that, with proper surroundings, works of an ideal character come into this category to a much greater degree than we now realize.

From this point of view, the fact that they had to make their exhibition indoors was not as great a drawback as may be thought. A circular which they have recently issued says that this exhibition ought to suggest to the public "the possibility of creating a purely American conservatory garden which will be a real home for sculpture ..... a garden which could be kept covered with glass during five months of winter by means of sections of glass frames, thus forming a conservatory, and which would be uncovered during the other months of the year, thus forming an open-air garden. Hitherto it has been argued that the severity of our climate made the placing in gardens and parks of marble statues a useless waste of money; but this argument will no longer hold good." And, indeed, the present exhibition shows what a delightful place might be created in this manner, while it suggests possibilities of more extensive treatment on a larger scale out-of-doors, when works in bronze, capable of resisting the effects of our winter weather, might be employed, or roofed alcoves and colonnades might protect more perishable materials.

In the first gallery, which runs all across the breadth of the Fine Arts Building, a series of clipped hedges, well disposed in variously curving lines, cut off the corners of the rooms, and supply niches and alcoves where statues are effectively set. The steps which, opposite the entrance door, lead up from this room into the small central apartment, are now masked by a temporary balcony, with a handsome balustrade and flights of steps leading up to it from either side; and in front of this balcony is a large flower-bed, of complex but symmetrical outline, which offers an excellent suggestion in regard to the way that the effect of the porches and piazzas of our country-houses might be improved by some semi-formal transition between them and the lawn.

Standing on the balcony and looking through the central room (where no gardenesque work has been attempted) we get a beautiful view into the big Vanderbilt Gallery, which has been utterly transformed from its usual aspect. This great square room is now divided into three unequal parts (the largest being the middle portion) by high walls, seemingly of marble, which run from the entrance nearly to the opposite wall of the room, where they are connected by a tall Ionic colonnade. The walls are some eight feet in height, with several massive piers which rise higher and are surmounted by ornamental plants (chiefly Palms) in huge pots and vases. On each side the wall retreats into a circular niche, filled by a fountain of running water, over which presides a statue of a child, appropriate in character to its place; and in front of each wall, likewise leading the eye toward the colonnade, runs a row of Tree-ferns, fifteen feet high, growing, of course, in tubs. Through the colonnade, the entablature of which is formed by a beautiful bas-relief by Mr. Herbert Adams, destined to adorn the Baptist Church on Washington Square, we see a lofty hedge of green, and against this stand three white statues, each opposite to one of the intercolumniations, and being thus effectively enframed to the eye; and these statues have been carefully selected for their simple dignity of outline—for a sort of semi architectonic character thoroughly appropriate to the use to which they are put as complements of the architectural scheme.

All the architectural elements are constructed of white plaster, in the same way, I suppose, that the work of building the Chicago Fair was done; but they look solid and marble-like, and they are so handsome in themselves, alike in their proportions and their simple details, and so well adapted in scale to the room in which they stand, that I found that people who had not previously seen the room supposed, of course, that they were permanent features. The success achieved in this direction seems all the more remarkable when we remember that the organizers of the exhibition had possession of the galleries for less than a week before the opening day. The work was directed, I understand, and the designs made, by Mr. Thomas Hastings, of the architectural firm of Carrère & Hastings, assisted, of course, by the counsels, the taste and the practical help of many other members of the Sculpture Society.

Messrs. Pitcher & Manda have lavishly aided these gentlemen by supplying them with the plants needed for the carrying out of their scheme. Of course, its horticultural elements must not be too strictly judged for the quality of appropriateness, either as regards the special service to which some of them are put or their effect as a whole. Under such conditions, not the best possible, but only the best available, plants could be utilized, and this must be borne in mind when estimating the result. The many hedges, some of which are very tall, are not growing, but manufactured, hedges, composed of branches of the Red Cedar, Juniperus Virginiana. But these have been so skilfully set and supported and bound together that the deception is not apparent even when they stand in such a way that both of their sides are visible. The Tree-ferns, which form, as it were, a natural colonnade, leading the eye up to the marble one, are beautiful specimens, nearly alike in height; and many of the Palms and similar plants which fill the great pots and vases on the piers of the wall and of the balcony balustrade in the first room deserve equal praise, while the pots and vases themselves are often very beautiful. Among them one fancies that he recognizes individuals that figured upon the New York Building at the Chicago Fair, which, it will be remembered, was decorated with such plant receptacles, specially imported by Mr. McKim, from Sicily, if I am not mistaken.

The beds of hardy herbaceous plants contain interesting specimens in flower, and, although they are grouped as harmoniously as is possible under the conditions, few of them can be considered appropriate settings for the works of art they support. Some small deciduous trees, just coming into leaf, add a touch of refinement to the general effect, although they do not accord very well in character with their tropical neighbors. Some collections of Orchids, massed on shelves in the corners of the rooms behind the hedges, are even less well suited to their places, although they are well worth examination on their own account. Other specimens of Orchids have been suspended from the trunks of the trees, and Stag-horn Ferns and Pitcher-plants have been attractively

used in the adornment of the fountain-niches. The large bed which lies in front of the balcony in the first room is edged with Box, but filled with tropical plants too high for their positions. It should never be forgotten that such beds as these, however beautiful their design may look on paper, are never effective in actuality unless one can recognize the patterns they make at a glance; and this, of course, is impossible, except from an elevated position, unless they are filled with very low-growing plants.

This is not the place in which to speak in detail of the works of sculpture which were the raison d'être for the exhibition. I can only say that there are many very good ones among them, and that, as a whole, they will probably give the public a truer idea of the development of this art in America than it has hitherto conceived. Moreover, it is now enabled to form some judgment with regard to the kinds of work which are best fitted for outdoor display, while even our sculptors themselves ought to learn much in regard to the necessity for placing their outdoor figures with care. The beautiful effect of white stone against green backgrounds is not the only point made plain. We realize that a work of a scale too small to look well if stationed quite "in the open" may look admirably out-of-doors if it forms an adjunct to some architectural motive or is set in some verdant corner where it will not be palpably out of scale with its environment. And also that, when a statue or group is not equally beautiful on all its sides, it is as possible as desirable, out-of-doors no less than indoors, so to place it that only those sides which are most satisfactory shall be visible.

On the whole the executives of the Sculpture Society deserve high praise for the originality, the energy and the good taste they have shown in organizing and arranging this exhibition. So pretty and attractive is the general effect of these galleries just now that even persons possessed of no distinct artistic or horticultural tastes ought to find much delight in visiting them.

New York. *M. G. Van Rensselaer.*

Notes.

A writer in *The Strawberry Culturist* has been testing different varieties of strawberries for fruiting under glass, and he finds that the comparatively new Brandywine yields the greatest amount of good fruit.

A grower of strawberries in Maine finds boughs or small trees of Spruce or Pine the best material for covering the plants in winter. These collect and hold the snow, which is the best non-conductor of heat, while permitting, at the same time, a sufficient circulation of air.

European orders are arriving in California for considerable quantities of redwood, to be used in the making of lead-pencils. This timber varies a good deal in the quality of its grain, but the best of it is found to be an acceptable substitute for Florida cedar, which is becoming rare.

Texas did not escape the cold weather which visited other southern states, and snow two feet deep fell along the coast in February. The season was, therefore, unusually late, and such plants as Dog-tooth Violets and Bluets, which usually flower in February, did not appear until the middle of March.

Daphne Cneorum, always an uncertain little evergreen here, seems to have come through the winter unusually well, and is now covered with its fragrant pink blossoms, and there is nothing better than this trailing shrub for rock-work. Flowering at the same time, but a good deal more hardy and trustworthy, are the half-shrubby perennial Candytufts. The flowers of these Candytufts are as white as snow, and since the plants resemble the Daphne in habit the two make admirable companions.

Mr. J. H. Hale writes to the *Florists' Exchange* that, although the Fay Currant has been introduced more than ten years, and has been propagated ever since by all the nurserymen of the country, it still commands a higher price than the older varieties of Currants. It seems strange that when this is known to be the case that the stock of the country is invariably sold out every year before the end of the season's trade. Perhaps one reason for this is that this variety does not root readily from cuttings, and that when it does root it never makes as strong a growth as the Victoria, the Cherry or the White Grape, so that from an equally-sized block of plants at least one-third more salable bushes of other varieties can be dug than of the Fay. Of all Currants the North Star is the easiest to grow and propagate, and under ordinary conditions it has grown to a height of four feet from cuttings in a single season.

Writing to the *American Agriculturist*, Mr. John N. May advises any one who can afford to buy only one Rose-plant to select Clothilde Soupert. This Rose belongs to the Polyantha class; it is perfectly hardy and blooms until frost; the flowers are a beautiful soft pink when they first open, changing to a pearly white as they get older; they are of excellent form and sweet-scented. After Clothilde Soupert, Mr. May recommends Mrs. Degraw, a Rose of the Bourbon class, glossy pink, and continuously in bloom; Souvenir de la Malmaison, another Bourbon, large, flesh-colored; La France, a Hybrid Tea, clear soft pink; General Jacqueminot, a Hybrid Perpetual, crimson; Duchess of Albany, another Hybrid Tea, a sport from La France, deep pink in color; and Dinsmore, a Hybrid Perpetual, coral-red. To these can be added Empress Augusta Victoria, white; Papa Gontier, bright red; Etoile de Lyon, yellow—Tea Roses which are not quite hardy, but which can exist through ordinary winters with good protection.

The very warm weather of the past two weeks has hurried forward large supplies of southern vegetables, the crops that were planted in Florida after the February freeze having become marketable at the same time with vegetables from North Carolina and Virginia. Asparagus, for example, on Friday of last week sold at wholesale for as little as thirty to seventy-five cents for a dozen large bunches. Hundreds of crates of beans and peas from Florida were left unclaimed on the docks by consignees, since they could not be disposed of at prices which covered the expenses for freight, and these perishable vegetables were carted away and destroyed at an additional expense to the steamship companies. French artichokes from New Orleans, much smaller than those which have been coming from Algiers, bring seventy-five cents a dozen. New Brussels sprouts from Bermuda cost twenty-five cents a quart, and celery from the same islands twenty-five cents a bunch. Strawberries are plentiful, and those from Norfolk bring as much as thirty cents a quart retail for the choicest. The Maryland crop is expected to arrive during the current week.

California oranges, both Navel and seedling, are still arriving in large quanties, ten car-loads of this fruit having been sold at auction in this city on Monday. Prices are low, and the cost of shipment is hardly covered. Bananas are bringing extreme prices, the best grade from Aspinwall, Banes and Sama realizing from $1.75 to $2.00 a bunch by the truck-load on the docks. About 23,000 barrels of pineapples came into this port from Cuba during last week, and schooners from the Bahama Islands are bringing large quantities in bulk. The shipments from Nassau will continue until about the middle of July, or a month later than those from Havana. Much of the Bahama fruit was canned at home last season, but the experiment seems to have been unsatisfactory. The decay in pineapples is a very considerable item in determining prices for the sound fruit. The first pineapples of the season are naturally rather green, and they carry better because they are more firm than riper fruit. The percentage of decay in the green fruit amounts generally to ten or fifteen per cent., though the average decay in the riper Havana fruit reaches thirty-five or forty per cent., and the loss sometimes amounts to as much as ninety per cent. The weather is largely responsible for decay, especially in the loose cargo lots, the moisture from rains in the green tops occasioning fermentation.

According to Dr. T. H. Hoskins, the Apple known as Scott's Winter is practically the only valuable native variety which will thrive in his climate on Lake Memphramagog and in the Clyde River valley and yield fruit that will keep all winter. This fruit is not at its best until about the first of April, and it will keep well a good month longer. All through the north-west, as well as in northern Vermont, especially in Wisconsin, Iowa and Minnesota, it is considered the best apple for the late winter market. No other variety so productive of such handsome fruit will grow north of the point where the Baldwin fails to endure the cold. A fence-corner seedling, it was introduced by Dr. Hoskins some twenty years ago and named for the owner of the farm where it originated on the west shore of Lake Memphramagog, less than a mile from the Canada line. The original tree is said to be in good condition still. Dr. Hoskins is propagating another late winter Apple-tree from Russia, which bears what he regards a better dessert fruit than Scott's Winter. A specimen of this apple sent to this office is of fair size, a beautiful color and pleasant aroma. The flesh is firm in texture and fine in grain. The flavor is hardly sprightly enough to suit an educated taste, but for the cold north, where few good kinds will grow, the hardiness of the tree and the admirable keeping qualities of the fruit ought to make it a most desirable variety.